Bill Brewer
Granville Site Technical Committee
10805 Cahill Road
Raleigh, NC 27614

Via Express Mail

October 7, 2002

KA. 10/10/02

Mr. Kevin Adler, Remedial Project Manager
U.S. Environmental Protection Agency, Region 5
Office of Superfund, Remedial & Enforcement Response Branch
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Subject: Granville Solvents Site Removal Action Quarterly Progress Report – Third Quarter 2002

Dear Mr. Adler:

I have enclosed two copies of the Third Quarter 2002 Report for the Removal Action at the Granville Solvents Site on behalf of the Granville Solvents Site PRP Group. Copies have been sent to the following individuals:

1. Mr. Steve Acree, U.S. EPA
2. Mr. Fred Myers, Ohio EPA
3. Mr. Joe Hickman, Manager, Village of Granville

If you have any questions regarding this report, please contact me at (919) 668-3218.

Regards,

Bill Brewer

William S. Brewer, Ph.D.
Granville Technical Committee Chair

cc: Peter Felitti, Regional Counsel, US EPA
Ben Pfefferle, Chairman, GSS PRP Group
Granville Technical Committee
G. Myers, Metcalf & Eddy
T. Struttmann, Sharp & Associates

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GRANVILLE SOLVENTS SITE
REMOVAL ACTION QUARTERLY REPORT
FOR JULY, AUGUST and SEPTEMBER, 2002

OCTOBER 2002

Pursuant to the requirement set forth in the Administrative Order by Consent (AOC, September 7, 1994) between the U.S. EPA and the Granville Solvents Site (GSS) Potentially Responsible Parties (PRP) Group, in Section 2.5 – Reporting, and in a letter dated November 14, 1996, from Ms. Diane Spencer (U.S. EPA), this report constitutes the quarterly written progress report concerning actions undertaken pursuant to the AOC.

I. PROGRESS MADE DURING REPORTING PERIOD

Source Area Groundwater Control

The groundwater pumping and treatment system operated 744 hours in July, 744 hours in August, and 710* hours in September, for a total of 2,198 hours (99.55*% of the total hours available) during the third quarter of 2002. Since operation of the treatment system began in December 1994, the system has been operating over 98.8% of the available time.

During the third quarter of 2002, the treatment system processed approximately 9.4 million gallons of water in July, 9.6 million gallons of water in August, and 8.73* million gallons of water in September for a total of 27.73 million gallons of water for the quarter. Since operation began in December 1994, the system has processed more than 924.53* million gallons of water.

During the third quarter of 2002, Metcalf & Eddy collected monthly air pressure measurements in the air-stripping unit's inlet and exhaust ducts to calculate airflow values. The airflow rate during the month of July averaged 2000 cfm, 1931 cfm in August, and 1919* cfm in September. Acid washing of the treatment system has been planned for early October.

M&E continued to perform scheduled monthly maintenance on the treatment system to ensure that the system is performing at maximum efficiency with decreased unscheduled downtime. Maintenance included replacing bag filters, lubricating the transfer pump and blower motors, and maintaining the flow meters and level sensors.

Water samples were collected from the system's influent and effluent sampling ports on July 16, August 14, and September 17, 2002. Analytical results are listed in Table 1.

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* Values may be updated upon receipt of additional data.

TABLE 1

VOCs	Influent July 16	Effluent July 16	Influent August 15	Effluent August 15	Influent September 17	Effluent September 17
1,1,1-trichloroethane	11.0 µg/l	ND	10.4µg/l	ND	11.9 µg/l	ND
Cis-1,2-dichloroethene	3.2 µg/l	ND	2.9µg/l	ND	3.0 µg/l	ND
Tetrachloroethene	14.9 µg/l	ND	14.9 µg/l	ND	12.7 µg/l	ND
Trichloroethene	15.9 µg/l	ND	14.7 µg/l	ND	15.1 µg/l	ND
1,1-dichloroethylene	0.34 µg/lJ	ND	0.30 µg/lJ	ND	ND	ND

Extraction well GSS-EW1 was operated at an average flow rate of approximately 90 gallons per minute (gpm) during the third quarter of 2002, whereas GSS-EW2 was operated at an average flow rate of approximately 110 gallons per minute (gpm) during the period. The total pumping rate from the two wells averaged 210.6* gpm for the third quarter of 2002 – 212 gpm for the month of July, 215 gpm for the month of August, and 205* gpm for the month of September.

The data in Table 1 represent groundwater treatment influent and effluent concentrations measured during the third quarter of 2002. Approximately 27.73 million gallons of water were processed in the third quarter of 2002. Based on these data, approximately 0.15 lb/day in July, 0.14 lb/day in August and 0.13 lb/day in September of total VOCs were discharged to the atmosphere during the reporting period.

Groundwater Monitoring Plan

Groundwater level measurements were collected on July 16, August 14, and September 17, 2002. These data were used to develop potentiometric surface maps with the map developed with the August 14 data attached to this report.

* Values may be updated upon receipt of additional data.

Source Area Soils

Sharp and Associates, Inc. (SHARP) continued operation of the air injection/air sparging/ and soil vapor extraction (AI/AS/SVE) system during the third quarter 2002.

The treatment system was tested and started up on September 9, 2001. The air injection and soil vapor extraction components were brought on line in late September. The air sparging component of the system was started up during October 2001 after the whole air sample confirmed that operation was below the de minimis air discharge of 10 lb/day.

System maintenance followed procedures outlined in the Removal Action Operations and Maintenance Manual (SHARP, October 26, 2001). To date, approximately 185 pounds of total VOCs (based on SUMMA data results) have been removed with the SVE/AS/AI system. Mass removal estimates were recalculated after data from SUMMA canister samples collected on May 5, 2002 were analyzed. As a result, the estimate of mass removed has been slightly lowered. The removal rate has been maintained below the de minimis value of 10 lb/day.

Active or Completed Tasks

The following specific tasks were completed during the reporting period:

- Collected water samples on July 16, August 14 and September 17, 2002 from the groundwater treatment system influent and effluent sampling ports.
- Collected water level measurements on July 16, August 15 and September 17, 2002.
- Collected groundwater treatment system airflow data on a monthly basis.
- Collected the quarterly suite of samples from the monitoring well network on August 5, 2002.
- Performed maintenance on a butterfly valve that had become encrusted with iron deposits
- Checked head loss through the 4-inch PVC pipe from EW-2 to the building to determine if iron fouling was causing a reduction in flow area within the pipe. Results indicate that pipe flow was relatively uninfluenced by iron fouling, but additional testing at a higher flow rate will be required to verify conclusion.
- A whole air sample was collected from the SVE/AI/AS system the week of September 23, 2002.
- On July 31, 2002, runs times for the air injection system were modified so that the system would operate in a 12hours on/12 hours off mode to change the air balance and increase gas removal.

- SVE blower #1 was turned off on August 31, 2002 to reduce exit air temperatures. SVE blower # 2 remained on line throughout the quarter. Blower # 1 will be placed back into service once ambient air temperatures remain consistently below 90°F.
- Responded to all soil treatment system alarm issues.

II. DELIVERABLES (CURRENT PERIOD AND NEXT PERIOD)

Current Period:

Deliverable	Due Date	Delivered
Quarterly Report	October 7, 2002	October 7, 2002

Next Period:

Deliverable	Due Date
Quarterly Report	January 7, 2003

III. DIFFICULTIES ENCOUNTERED & RESPONSE ACTIONS TAKEN THIS PERIOD

The air discharge stack to the SVE unit exceeded the design melt temperature when ambient air temperatures exceed 95°F over several days. The PVC stack was replaced with one made of tin and SVE blower # 1 was shut down to reduce the exit gas temperature. The SVE system was down for less than 24 hours to accommodate the above changes. SVE blower # 1 will be placed back into service once the ambient air temperature drops and stays below 90°F, projected to occur near the end of September.

IV. ANTICIPATED ACTIVITIES DURING NEXT REPORTING PERIOD

During the next reporting period, the following tasks will be performed:

- Collect potentiometric surface data on a monthly basis.
- Sample the groundwater treatment system influent and effluent water on a monthly basis.
- Perform scheduled maintenance of the groundwater treatment system
- Collect the semi-annual suite of samples from the groundwater monitoring network.
- Continued operation, maintenance, and monitoring of the SVE, AS, and AI systems.
- Restart SVE blower # 1 once weather permits (daytime high temperatures consistently below 90°F).
- Collect whole air sample.

Nonresponsive map showing municipal well locations

LEGEND

- MONITOR WELLS
- EXTRACTION WELLS
- VILLAGE PRODUCTION WELLS
- OBSERVATION WELL
- ELEV. NOT USED

GROUND WATER DIVIDE

GROUND W... DIVIDE

NUMBER	DATE	MADE BY	CHECKED BY	DESCRIPTION

REVISIONS

DRAWN BY

DEPT. CHECK

PROJ. CHECK

Metcalf & Eddy

REG. PROF. ENGR. DATE

SCALE: 1" = 100'

SCALE IN FEET
0 50 100

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

GRANVILLE SOLVENTS SITE
POTENTIOMETRIC SURFACE
AUGUST 14, 2002
GRANVILLE, OHIO

JOB 016588
FILE NO. potaug02
SHEET